

Base Hospital Contact: Required for all patients with symptomatic bradycardia.

1. Assess airway and initiate basic and/or advanced airway maneuvers prn (MCG 1302)
2. Administer **Oxygen** prn (MCG 1302)
3. Initiate cardiac monitoring (MCG 1308)
Assess cardiac rhythm and obtain 12-lead ECG
4. If cardiac chest pain/STEMI suspected as cause of bradycardia, treat in conjunction with TP 1211, *Cardiac Chest Pain*
5. Maintain supine for patients with signs of poor perfusion, if respiratory status allows
6. Establish vascular access (MCG 1375)
Do not delay transcutaneous pacing (TCP) if indicated for vascular access
7. For suspected hyperkalemia ④
Calcium Chloride 1gm (10mL) slow IV/IO push, may repeat x1 for persistent symptoms
Albuterol 5mg (6mL) via neb, repeat continuously until hospital arrival
CONTACT BASE for obtain order for **Sodium Bicarbonate 50mEq (50mL) slow IVP ⑤**
8. For poor perfusion:
Atropine 0.5mg (5mL) IV/IO push, repeat every 3-5 min prn, maximum total dose 3mg
If IV cannot be rapidly established or if HR \leq 40bpm in 2nd degree type II or 3rd degree heart block, proceed immediately to transcutaneous pacing ①
If no improvement after initial dose of **Atropine**, proceed to TCP
9. **TCP** for HR \leq 40 with continued poor perfusion (MCG 1365)
Recommended initial settings: rate 70bpm/0mA, slowly increase mAs until capture is achieved ②
CONTACT BASE concurrent with initiation of TCP

If TCP will be utilized for the awake patient, consider sedation and analgesia
For sedation:
Midazolam 2mg (0.4mL) slow IV/IO push or IM/IN
May repeat every 5 min, maximum total dose prior to Base contact 6mg
For pain management:
Fentanyl 50mcg (1mL) slow IV/IO push or IM/IN
Repeat every 5 min prn, maximum total dose prior to Base contact 150mcg
Morphine 4mg (1mL) slow IV/IO push or IM
Repeat every 5 min prn, maximum total dose prior to Base contact 12mg

CONTACT BASE for additional sedation and/or pain management after maximum dose administered: May repeat as above to a maximum dose of Midazolam 10 mg, and Fentanyl 250mcg or Morphine 20mg
10. For signs of poor perfusion with HR > 40:
CONTACT BASE to discuss appropriateness of TCP

11. For persistent poor perfusion after initiating TCP:

CONTACT BASE to obtain order for **Normal Saline 1L IV/IO rapid infusion** and/or **Push-dose Epinephrine**

While infusing **Normal Saline**, reassess after each 250 mL increment for evidence of volume overload (pulmonary edema); stop infusion if pulmonary edema develops

Push-dose Epinephrine – mix 9mL Normal Saline with 1mL Epinephrine 0.1mg/mL (IV formulation) in a 10mL syringe. Administer **Push-dose Epinephrine (0.01mg/mL) 1mL IV/IO** every 1-5 min as needed to maintain SBP > 90mmHg ⑤

12. For suspected overdose, treat in conjunction with [TP 1241, Overdose/Poisoning/Ingestion](#)

13. For nausea or vomiting:

Ondansetron 4mg ODT/IV/IM, may repeat x1 in 15 min prn ⑥

SPECIAL CONSIDERATIONS

- ❶ In patients with 2nd degree type II or 3rd degree heart block, atropine is unlikely to produce clinical improvement, therefore TCP should not be delayed for atropine administration.
- ❷ Electrical capture can occur without mechanical capture. Assess for electrical capture by reviewing the rhythm strip for a QRS complex and a T wave after each pacer spike. Assess for mechanical capture by palpating a pulse with each QRS complex.
- ❸ **Push-dose Epinephrine** is appropriate for non-traumatic shock including cardiogenic shock. Additional doses beyond 10mL may need to be prepared for prolonged transports.
- ❹ Patients at increased risk for hyperkalemia include those with history or clinical evidence of renal failure, missed dialysis or patients taking potassium-sparing diuretics such as spironolactone. ECG signs of hyperkalemia included peaked T-waves, wide QRS, bradycardia, long PR interval and absent P-waves.
- ❺ Sodium Bicarbonate is another rapid-acting treatment for suspected hyperkalemia. Due to the risk of pulmonary edema, contact Base to discuss administration.
- ❻ Nausea and vomiting cause vagal stimulation, which can worsen bradycardia. Ondansetron may be administered to reduce potential for nausea or vomiting.